



**HH64A
THERMOMETER
OPERATING
INSTRUCTIONS**

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1. HH64A THERMOMETER OPERATING INSTRUCTIONS

SWITCH ON

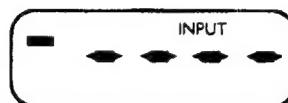


Press to turn ON. (Keep pressed if you want to see all the display symbols.)


Note: The instrument performs a self-test for up to 4 seconds when switched on.


Press this button again to turn the instrument OFF.

Note: A probe must be inserted before you can operate all the functions. If a probe is not inserted the display appears as follows:




This is the normal indication for an open circuit or broken probe and out of range indication.


 **SCALE:** Selects °C, °F or °A. The chosen setting is shown on display. Press this button to scroll around the options.


 **MATERIAL:** Selects thermocouple material. Options are K, N, T, J, R or S. Press this button to scroll around the options.

Note: Take care to ensure that the instrument is set for the correct thermocouple material otherwise measurement errors will result. Call Customer Support Department if you need advice in choosing the best material for your application.

 **HOLD:** Freezes the display with the last measured value. 'HOLD' is shown on the display. Press button again to release this function.

Note: Having selected HOLD, it is still possible to scroll the held values of MAX, MIN and ACTUAL temperatures and to redisplay the temperature scale for any of these.

 This button scrolls the display of MAXIMUM, MINIMUM and ACTUAL temperatures.

 **RESET** of Maximum and Minimum to Actual value. This function occurs automatically at switch-on.

At the instant of RESET the horizontal bar above the temperature scale symbol becomes visible for one second. RESET copies the actual value into the Maximum and Minimum stores, it does not alter the selection for display.

AUTO-SWITCH OFF

The HH64A can be configured to either automatically switch off three minutes after the last button operation or to remain permanently on until manually switched off.

This mode is indicated on the display by the horizontal bar above the least significant (right side) digit. When the bar is visible the instrument will auto power down.

To change from one mode option to the other, switch the instrument OFF, then with the HOLD button depressed switch the instrument ON again.

DISPLAY

(See Figure 1 below)

- ① Maximum & Minimum
- ② Display held
- ③ Input open circuit or over range
- ④ Auto switch off enabled
- ⑤ Max/Min reset indicator
- ⑥ Celsius, Fahrenheit, Absolute
- ⑦ Low battery warning
- ⑧ Thermocouple Type
- ⑨ Minus sign
- ⑩

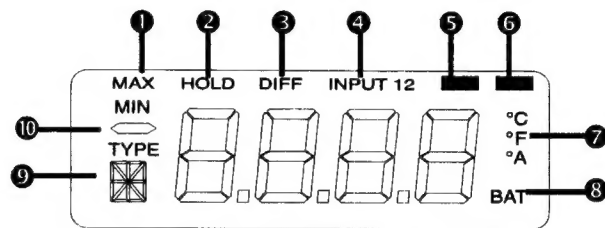


Fig 1.

2. TROUBLESHOOTING

Nothing happens when the thermometer is switched on:

- (a) Check if the battery is low or discharged. Fit a new battery. If the instrument still does not function, contact our Technical Services Department.

The thermometer works but will not measure temperature correctly:

- (a) Incorrect orientation of the connector when fitted to the input socket will show as temperature movements in the wrong direction.
- (b) The probe or plug connection may be damaged. Check by using a spare probe.
- (c) The probe may not be suitable for the job. For example, frozen foods, refrigerated cabinets, between pack measurements of chilled foods, surface temperatures of rolled steel, internal temperatures of concrete or tarmac and other applications all require different probes.

CARE OF THE INSTRUMENT

The HH64A thermometer is **dust** and waterproof to IP67 and will withstand **harsh environments**. Use a damp cloth or warm soapy water to **prevent deposits** hardening or becoming sticky. Do not use solvent based cleaners or methylated spirit, etc.

If you need to store your instrument for an extended period (for example your spare unit) **remove battery** to eliminate risk of leakage.

CHANGING THE BATTERY

The symbol BAT appears on the display once the battery voltage reaches a preset level on load. Please replace your battery as soon as possible after seeing this symbol. To replace the battery unscrew the screw retaining the battery cover on the rear of the instrument. Insert the battery ensuring the polarity is correct. Take care not to over tighten the screw when re-fitting the cover.

3. HH64A INSTRUMENT SPECIFICATION

Sensor Type	Thermocouple, types K, N, T, J, R, S		
Measurement	T/C Type	From °C	To °C
Range	K	-200	+1372
	N	-200	+1300
	T	-200	+400
	J	-200	+1200
	R	-50	+1767
	S	-50	+1767
Calibration to BS EN 60584 thermocouples (ITS90)			
Scales	°C, °F, °A (Kelvin)		
Resolution	0.1° below 1000°, 1° above 1000° (autoranging)		
Accuracy at 23°C	Better than $\pm 0.1\%$ of reading $\pm 0.2^\circ\text{C}$		
Temperature Coefficient	Less than $\pm 0.01\%$ of reading per °C change from 23°C		
Cold Junction Stability	Better than $\pm 0.05^\circ\text{C}/^\circ\text{C}$		
Ambient Temperature Range	-25°C to +50°C normal working, -25°C to +70°C storage		
Input Resistance	20M Ω (Megohms) $\pm 10\%$		
Response time	2 seconds to full accuracy		
Battery	9 volt IEC 6F22, 6LF22		
Battery Life (continuous)	90 hours Alkaline		
Dimensions	L183mm x W68/79mm x D 31mm		
Weight	270g		
Protection	IP67, BS EN60529, IEC529		
EMC	Emission — EN 50081-1 No emissions above EN 55 022 Class B limits Immunity — EN 50082-1 Performance to Criterion B		

Due to our policy of continual product improvement specifications are subject to change without prior notice.

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